

Remarks

Reconsideration of the above-identified application is respectfully requested. Claims 1-20 are pending in this application.

In the Office Action mailed March 29, 2006, the Examiner finally rejected claims 1-20 under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 6,087,930 ("the '930 patent"). The Applicants respectfully traverse that rejection for the reasons set forth in detail below.

Rejection of Claims 1-20 Under 35 U.S.C. §102(b)

As noted above, the Examiner finally rejected claims 1-20 under §102(b) in view of the '930 patent. The Applicants believe, however, that those claims are not anticipated by that reference.

The Applicants' claimed invention is directed to a universal tire monitor. As set forth in independent claim 1, the monitor comprises a sensor for sensing tire pressure and a transmitter for transmitting a wireless signal that includes data representing the sensed tire pressure. The monitor also comprises a storage device for storing a plurality of codes, each code comprising at least a data format. The wireless tire pressure signal is transmitted according to at least one of the stored plurality of codes.

As set forth in independent claim 11, the monitor comprises a sensor for sensing tire pressure and a transmitter for transmitting a wireless signal that includes data representing the sensed tire pressure. The monitor also comprises a receiver for receiving a program signal, the program signal comprising one of a plurality of codes, each code comprising at least a data format. The wireless tire pressure signal is transmitted according to the one of the plurality of codes received by the receiver.

In that regard, as described in the specification of the present application in connection with Figure 2, the universal tire monitor may include a pressure sensor, a controller, a transmitter and a receiver. The controller may store a plurality of manufacturers' codes. In existing TPM systems, manufacturers' codes may be used to identify a signal format including any number of characteristics, such as carrier frequency, modulation scheme, data format and/or encryption technique, for wireless signals. Prior to or upon installation of the monitor in a vehicle tire, a program signal may be sent to the receiver, such as by a technician, either via a remote transmitter or an external interface. In this embodiment, the program signal includes a command for use by the controller to select one of the plurality of stored manufacturers' codes. Subsequently, during operation of the TPM system, the controller controls the transmitter to transmit wireless signals according to the signal format indicated by the selected manufacturers' code. (*See, e.g.*, Specification, p. 6, l. 24 - p. 7, l. 27.)

Alternatively, rather than storing a plurality of manufacturers' codes, the controller may be used to store a particular manufacturer's code received via a program signal. Subsequently, during operation of the TPM system, the controller controls the transmitter to transmit wireless signals according to the signal format indicated by the particular manufacturers' code received. In either embodiment, rather than being specially configured to operate in a particular TPM system, the tire monitor is universal. That is, the tire monitor has the ability to transmit wireless signals according to any signal format, and can therefore be programmed to operate in any TPM system. (*See, e.g.*, Specification, p. 7, l. 28 - p. 8, l. 14.)

As set forth in independent claim 19, the tire monitor comprises a sensor for sensing tire pressure and a transmitter for transmitting a series of wireless signals that include data representing the sensed tire pressure. The monitor also comprises a storage device for storing a plurality of codes, each code comprising at least a data format. Each of the series of wireless tire pressure signals is transmitted according to a different one of the stored plurality of codes.

In that regard, as described in the specification in connection with Figure 3, the controller may store a plurality of manufacturers' codes. During operation of the TPM system, the controller controls the transmitter to transmit a series of wireless signals. Each one of the series of wireless signals is transmitted according to the signal format indicated by a different one of the plurality of manufacturers' codes. In such a fashion, a wireless signal is transmitted by the transmitter for every type of TPM system. A control module on-board the vehicle, including a receiver, recognizes one of the series of wireless signals from the transmitter. Once again, rather than being specially configured to operate in a particular TPM system, the tire monitor is universal. That is, the tire monitor transmit wireless signals according to a plurality of signal formats for every type of TPM system, and therefore operates in all TPM systems. (*See, e.g.*, Specification, p. 9, l. 6 - p. 10, l. 5.)

The '930 patent is directed to a transponder and sensor apparatus for transmitting vehicle tire parameter data. Wireless signals transmitted by the apparatus include a tire identification code, which is simply data that identifies a particular tire. Significantly, in contrast to the tire monitor of the Applicants' claimed invention, that code does not identify or represent a signal format for the transmission of the wireless signals, where the format may include characteristics such as carrier frequency, modulation scheme, data format and/or encryption technique. Instead, the '930 apparatus is specially configured to transmit wireless signals according to the specific signal format set forth in its control program. (*See, e.g.*, '930 Patent, col. 5, ll. 20-31.)

Thus, in contrast to independent claim 1, '930 patent fails to teach or suggest a storage device for storing a plurality of codes, each code comprising at least a data format, or a transmitter for transmitting a wireless signal according to one of the stored plurality of codes. Similarly, in contrast to independent claim 19, the '930 patent fails to teach or suggest a storage device for storing a plurality of codes, each code comprising at least a data format, or a transmitter for transmitting a series of wireless signals, each according to a different one of the stored plurality of codes. Still further, in contrast to independent claim 11, the '930 patent fails to teach or suggest a receiver for receiving a program signal, the program signal comprising one of a plurality of codes, each code comprising at least a data format, or a

transmitter for transmitting a wireless signal according to the one of the plurality of codes received by the receiver.

As a result, for at least these reasons, the Applicants believe that independent claims 1, 11 and 19 are not anticipated by the '930 patent. Reconsideration of the Examiners rejection of those claims under 35 U.S.C. §102(b) is therefore respectfully requested.

Claims 2-10, 12-18 and 20 depend either directly or indirectly from independent claims 1, 11 and 19, respectively, and include the limitations thereof. As a result, for at least the reasons set forth above concerning independent claims 1, 11 and 19, the Applicants believe that claims 2-10, 12-18 and 20 likewise overcome the Examiner's rejection thereof under §102(b), and reconsideration of that rejection is also respectfully requested.

CONCLUSION

For at least the foregoing reasons, the Applicants believe that claims 1-20 meet both the formal and substantive requirements for patentability, and that the application is in condition for allowance. Accordingly, such action by the Examiner is respectfully requested.

If a telephone conference would expedite allowance or resolve any further questions, such a call is invited at the Examiner's convenience.

Respectfully submitted,

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